YOUR MOST VALUABLE RESOURCE - WATER

OFFICE OF
FRESNO IRRIGATION DISTRICT

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FRESNO, CALIFORNIA 93725-2218

May 16, 2012

Mr. Tony Valdez
California High Speed Rail Authority
770 "L" Street, Suite 800
Sacramento, CA 95814

RE: Review of 30% High Speed Rail Plans for Segment 1A
(Veteran's Boulevard to Stanislaus Street)
FID Facilities: Herndon Canal No. 39 Lisenby No. 45, Victoria No. 42, Victoria Colony No. 43, Tracy No. 44, Cole West Branch No. 40, Cole South Branch No. 40, and Dry Creek No. 75.

Dear Mr. Valdez,

The Fresno Irrigation District (FID) has reviewed 30% California High Speed Rail Authority (CHSRA) plans for Segment 1A that were provided to FID on April 20, 2012. Please note that these comments are provided in addition to those previously sent to the CHSRA by letter from FID on October 13, 2011 in response to the Draft EIR/EIS. Reference is made to the items identified in that letter, several of which still need to be incorporated into the plans. Sorted by FID facility, the following are FID's project comments and requirements for Segment 1A:

Herndon Canal No. 39 (HSR ROW and Golden State Blvd.)

- Provide a plan/profile along the centerline of FID's facility, and includes location of other utility crossings in plan and profile views. The plan and profile view should show the entire length of the proposed District facility extending across the entire HSR and City rights of way. A plan sheet similar to ST-Y5001 should be prepared for the Herndon Canal facility.
- Based on recent conversations with the CHSRA and its design consultants, the proposed facility design needs to be modified to address FID's previously mentioned trash removal and access concerns. It would seem that two primary options remain, either:

- Extend the culvert/bridge crossing across the HSR and Union Pacific Rail Road (UPRR) right of way, and upstream far enough to allow for a turnaround area for FID vehicular access and/or trash removal, or
- Provide a travelling water screen and related structures or appurtenances at an upstream location.

Reference is made to the October 13, 2011 letter for addressing accessing onto Golden State Boulevard and required right of way needs.

- A bypass facility will be required to be operational during construction, so the CHSRA may want to consider constructing the new facility adjacent to the existing facility.
- An easement for all newly constructed facilities shall be required. Refer to FID's standard detail "drive approach in urban areas" attached to the letter provided on October 13, 2011.
- A pier/trash rider will be required on the upstream side per FID's standard detail provided on October 13, 2011.
- Hydraulic calculations shall be submitted to confirm adequate facility size for the proposed structure and shall include headloss calculations and energy hydraulic/grade lines.
- Structural details and calculations of the culvert will be required to be part of the final plans before approval is given and a FID construction permit issued.
- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- Plan sheets reviewed include TT-D3002, TT-D3003, TT-D1002, ST-K1001, ST-K1002, ST-K1003, ST-I1001, ST-I1002, ST-I1003, CV-R1007-GSB, CV-I1006-GSB, CV-G1006-GSB, UT-C4010, CV-G1002. Please identify any other sheets that cover the area of this FID facility.

<u>Lisenby No. 45 (HSR ROW and Golden State Blvd.)</u>

- Provide a plan/profile along the centerline of FID's facility that shows the limits of the pipeline construction and connection to existing pipeline, and includes location of other utility crossings in plan and profile views.
- Plans shall include or reference the FID standard concrete collar connection detail where new ASTM C-361 Rubber-Gasketed Reinforced Concrete Pipe (RGRCP) will connect to existing concrete pipe at both the east and west limits of the facility relocation.
- At the two locations with 90-degree angles in the pipeline alignment, a 60-inch diameter concrete standpipe shall be included in accordance with FID standards including a metal cover and access hatch in each. Refer to FID standard detail 26B.
- The casing shall extend across the CHSRA's full right of way width. More detail is needed to understand the location of construction/receiving pits and the extent of construction to determine the work within the UPRR right of way. The existing

box structure on the upstream side (within the UPRR right of way) will likely need to be replaced with a 60-inch standpipe or similar structure.

- A 30-foot wide exclusive pipeline easement will be required for the new pipeline.
- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- Plan sheets reviewed include CV-G1009-GSB, CV-R1009-GSB, CV-G1010-R99, UT-C4015. Please identify any other sheets that cover the area of this FID facility.

Victoria No. 42, Victoria Colony No. 43, and Tracy No. 44 (HSR, Hwy. 99, Valentine and Dakota avenues)

- Provide a plan/profile along the centerline of FID's facility that shows the limits of the pipeline construction and connection to existing pipeline, and includes location of other utility crossings in plan and profile views.
- New pipeline will be required in all locations that will be within proposed CHSRA, Caltrans or City right of way due to the age of the facilities, non-reinforced pipe and inadequate structural properties to handle additional loading or vibration from the movement of heavy equipment and vehicles during construction. The alignment of these facilities needs to be reconsidered to eliminate angle points under roadways and to allow for any standpipes or box structures to extend above ground.
- The existing box structure on the west side of Highway 99 shall be replaced in accordance with FID standards. A possible relocation is located on a markup provided. A detail for this structure shall be included in the plans. The location of this structure shall be confirmed to be accessible to FID at all times. In addition, this box is a diversion box and headgate structure for both the Victoria Colony No. 43 and the Tracy No. 44 and will therefore require two gates at this location.
- Plans shall include or reference the FID standard concrete collar connection detail where new ASTM C-361 Rubber-Gasketed Reinforced Concrete Pipe (RGRCP) will connect to existing concrete pipe at both the east and west limits of the facility relocation.
- The casing shall extend across the CHSRA's full right of way width. More detail is needed to understand the location of construction/receiving pits and the extent of construction to determine the work within the UPRR right of way. The box structure on the upstream side (within the UPRR right of way) will likely need to be replaced with a 60-inch standpipe or similar structure.
- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- Plan sheets reviewed include CV-R1009-R99, CV-G1010-R99, CV-G1009-R99, CV-G1017-R99, CV-G1007, CV-R1017-R99 , UT-C4019, UT-C4020, C4033. Please identify any other sheets that cover the area of this FID facility.

Cole West Branch No. 40 (abandoned)

- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- Update Utility Information table to identify as 30" line, not 60".
- Plan sheets reviewed include CV-G1004-R99, CV-G1004A-R99, CV-G1012-R99, CV-G1013-R99, UT-C4024, CV-G1009. Please identify any other sheets that cover the area of this FID facility.

Cole South Branch No. 40

- The existing FID pipeline shall be removed and replaced with new ASTM C-361 RGRCP. The existing pipeline (within and adjacent to CHSRA's right of way) dates back to the 1940s. Protection of pipe is not a suitable solution. It is a non-reinforced concrete pipe and will not handle the additional loading or vibration from the movement of heavy equipment and vehicles during construction.
- Provide a plan/profile along the centerline of FID's facility shows the limits of the pipeline construction and connection to existing pipeline, and include location of other utility crossings in plan and profile views.
- FID's pipeline is misidentified as a storm drain facility. Correct the label (and associated linetype) on sheet UT-C4038 from "SD" to "IRR".
- A 60-inch diameter standpipe shall be constructed on both sides of rights-of-way limits for Golden State Boulevard and the CHSR. The standpipes shall be in accordance with FID standards and include a metal cover and access hatch. A detail of the standpipe shall be included in the plans. Refer to the attached details.
- Plans shall include or reference the FID standard concrete collar connection detail where new ASTM C-361 Rubber-Gasketed Reinforced Concrete Pipe (RGRCP) will connect to existing concrete pipe at both the east and west limits of the facility relocation.
- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- Plan sheets reviewed include UT-C4038. Please identify any other sheets that cover the area of this FID facility.

Dry Creek No. 75

- Provide a plan/profile along the centerline of FID's facility, and include location of other utility crossings in plan and profile views.
- Hydraulic calculations shall be submitted to confirm adequate facility size of the proposed structure and shall include headloss calculations and energy hydraulic/grade lines.
- Structural details and calculations of the culvert will be required to be part of the final plans before approval is given and a FID construction permit issued.
- A bypass facility will be required to be operational during construction, so the CHSRA may want to consider constructing the new facility adjacent to the

existing facility. Because of the limited construction window and need for bypass, the CHSRA may want to consider a pre-cast box culvert structure.

- Please provide a sheet showing the full access road easement and where it connects to Thorne Avenue. An easement for this access will be required.
- No road or surface drainage will be allowed into the canal. Adequate detail shall be included in the grading and drainage plans to show drainage away from the canal.
- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- Plan sheets reviewed include TT-D3007, TT-D1014, ST-Y3003, ST-Y1006, UT-C4053, CV-G1014. Please identify any other sheets that cover the area of this FID facility.

Dry Creek No. 75 (Thorne Avenue)

- Provide a plan/profile along the centerline of FID's facility, and includes location of other utility crossings in plan and profile views.
- Hydraulic calculations shall be submitted to confirm adequate facility size of the proposed structure and shall include headloss calculations and energy hydraulic/grade lines.
- A pier/trash rider will be required on the upstream side per FID's standard detail provided on October 13, 2011
- Structural details and calculations of the culvert will be required to be part of the final plans before approval is given and a FID construction permit issued.
- Add the name of FID's facility to all appropriate plan sheets, including the Utility Information tables on the Utilities sheets.
- No road or surface drainage will be allowed into the canal. Adequate detail shall be included in the grading and drainage plans to show drainage away from the canal.
- Plan sheets reviewed include CV-R1001-THN. Please identify any other sheets that cover the area of this FID facility.

For further clarification, attached are plan sheet markups on key sheets and a copy of available record plans of existing facilities at the CHSR crossing locations.

Easement and right of way legal descriptions and associated exhibits shall be prepared and submitted to FID for approval prior to any easement acquisition. Upon acceptance of the description by FID, a grant of easement agreement shall be executed consistent with FID's standard Grant of Easement template; a copy is attached for reference purposes.

If you have further questions, please feel free to contact Felix Vaquilar at 559-233-7161 extension 7403 or fvaquilar@fresnoirrigation.com.

Sincerely,

William R. Stretch
Chief Engineer

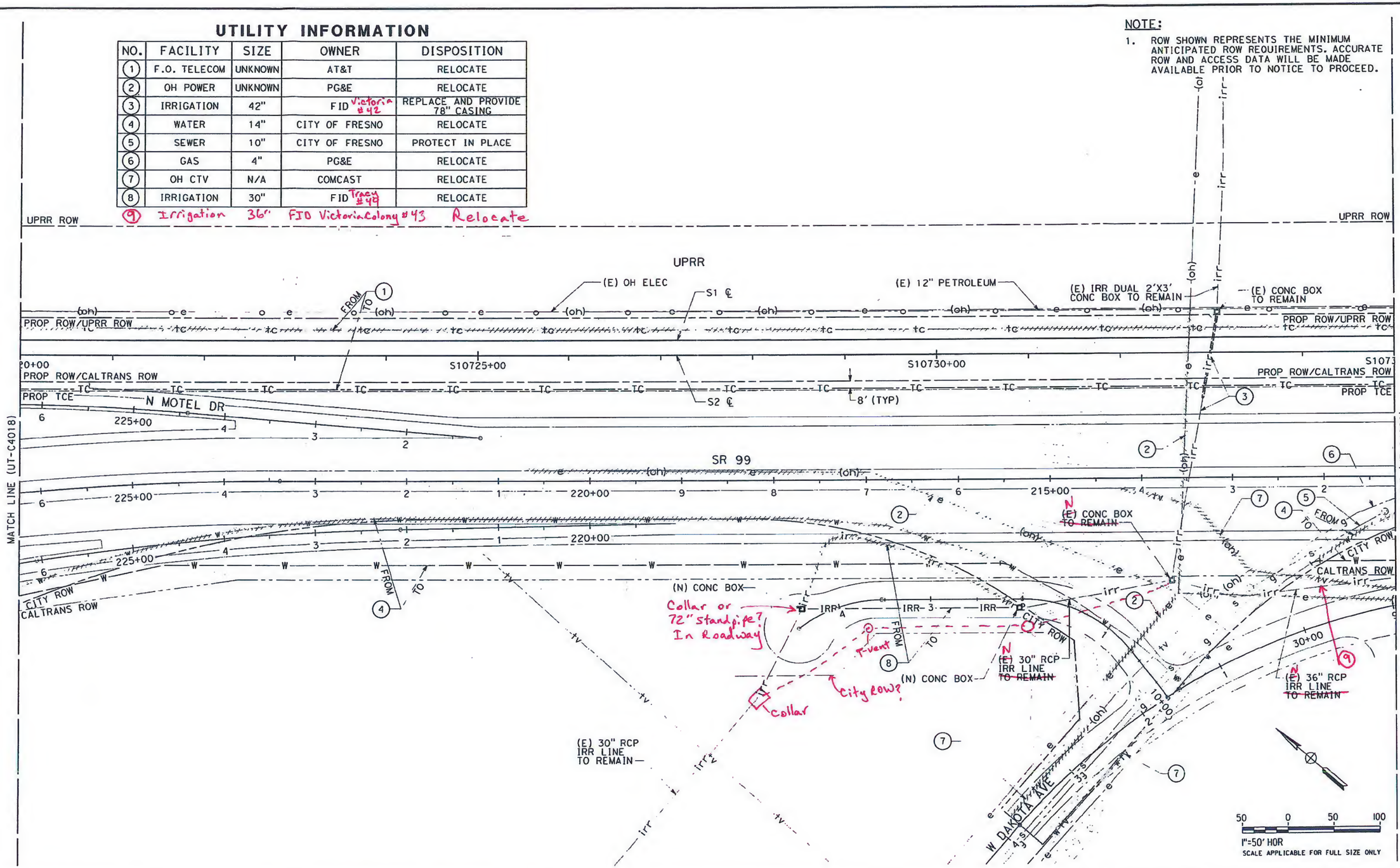
Enclosures

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	F.O. TELECOM	UNKNOWN	AT&T	RELOCATE
2	OH POWER	UNKNOWN	PG&E	RELOCATE
3	IRRIGATION	42"	FID Victoria #42	REPLACE AND PROVIDE 78" CASING
4	WATER	14"	CITY OF FRESNO	RELOCATE
5	SEWER	10"	CITY OF FRESNO	PROTECT IN PLACE
6	GAS	4"	PG&E	RELOCATE
7	OH CTV	N/A	COMCAST	RELOCATE
8	IRRIGATION	30"	FID Tracy #44	RELOCATE
9	Irrigation	36"	FID Victoria Colony #43	Relocate

NOTE:

1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. HU
DRAWN BY L. DIFUNTORUM
CHECKED BY J. MAHER
IN CHARGE D. MINISTER
DATE 12/08/11

PROPOSED PRELIMINARY DESIGN

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1A
UTILITIES
COMPOSITE UTILITY PLAN
STA. 10720+00 TO STA. 10735+00

CONTRACT NO.
DRAWING NO. UT-C4019
SCALE AS SHOWN
SHEET NO.

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	OH TELECOM	NA	UNKNOWN	RELOCATE
2	OH POWER	UNKNOWN	PG&E	RELOCATE
3	GAS	4"	PG&E	PROPOSED
4	OH TELECOM	NA	UNKNOWN	RELOCATE
5	OH POWER	UNKNOWN	PG&E	RELOCATE
6	GAS	4"	PG&E	PROTECT IN PLACE
7	IRRIGATION	24"	FID Coles. Br. #40	~~PROTECT IN PLACE~~ Relocate
8	SEWER	42"	CITY OF FRESNO	PROTECT IN PLACE
9	WATER	12"	CITY OF FRESNO	PROTECT IN PLACE
10	OH POWER	UNKNOWN	PG&E	RELOCATE

N WEBER AVE

UPRR

PROP ROW

S1 ℄

"S"

S2 ℄

N GOLDEN STATE BLVD

S10855+00

S10860+00

MATCH LINE (UT-C4037)

MATCH LINE (UT-C4039)

INTERLOCKING SITE (NIC BY OTHERS)

INTERLOCKING SITE (NIC BY OTHERS)

60" Standpipe

60" Standpipe

Collar Connection

Change to IRR

W PINE AVE

NW AVE

50 0 50 100

1"=50' HOR

SCALE APPLICABLE FOR FULL SIZE ONLY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY C. ALLEN
DRAWN BY C. DOEHNE
CHECKED BY M. POLISCHUK
IN CHARGE J. LABANOWSKI
DATE 2/17/12

PROPOSED PRELIMINARY DESIGN

NOT FOR CONSTRUCTION

URS HMM ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1A
UTILITIES
COMPOSITE UTILITY PLAN
STA. 10850+00 TO STA. 10865+00

CONTRACT NO.
DRAWING NO. UT-C4038
SCALE AS SHOWN
SHEET NO.

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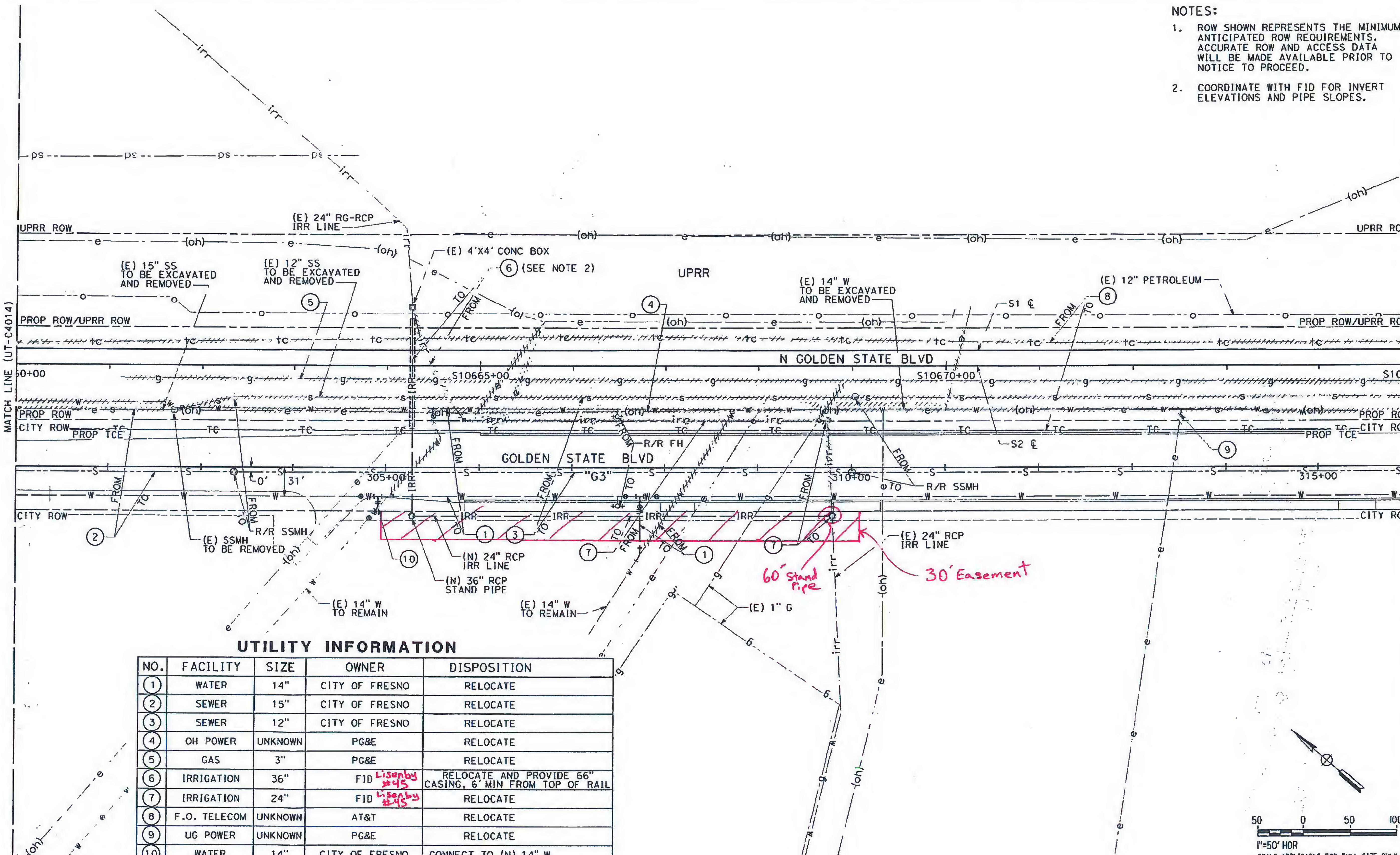
NOTES:

1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.
2. COORDINATE WITH FID FOR INVERT ELEVATIONS AND PIPE SLOPES.



UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	WATER	14"	CITY OF FRESNO	RELOCATE
2	SEWER	15"	CITY OF FRESNO	RELOCATE
3	SEWER	12"	CITY OF FRESNO	RELOCATE
4	OH POWER	UNKNOWN	PG&E	RELOCATE
5	GAS	3"	PG&E	RELOCATE
6	IRRIGATION	36"	FID Lisenby #45	RELOCATE AND PROVIDE 66" CASING, 6' MIN FROM TOP OF RAIL
7	IRRIGATION	24"	FID Lisenby #45	RELOCATE
8	F.O. TELECOM	UNKNOWN	AT&T	RELOCATE
9	UG POWER	UNKNOWN	PG&E	RELOCATE
10	WATER	14"	CITY OF FRESNO	CONNECT TO (N) 14" W

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. HU
DRAWN BY L. DIFUNTORUM
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DATE 12/08/11

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SIERRA SUBDIVISION
PACKAGE 1A
UTILITIES
COMPOSITE UTILITY PLAN
STA. 10660+00 TO STA. 10675+00

CONTRACT NO.
DRAWING NO. UT-C4015
SCALE AS SHOWN
SHEET NO.

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	F.O. TELECOM	UNKNOWN	AT&T	RELOCATE
(2)	GAS	4"	PG&E	RELOCATE
(3)	OH POWER	UNKNOWN	PG&E	RELOCATE
(4)	OH CTV	N/A	COMCAST	RELOCATE
(5)	WATER	14"	CITY OF FRESNO	RELOCATE

(6) Irrigation 36" FID Victoria Colony #43 Relocate

NOTE:

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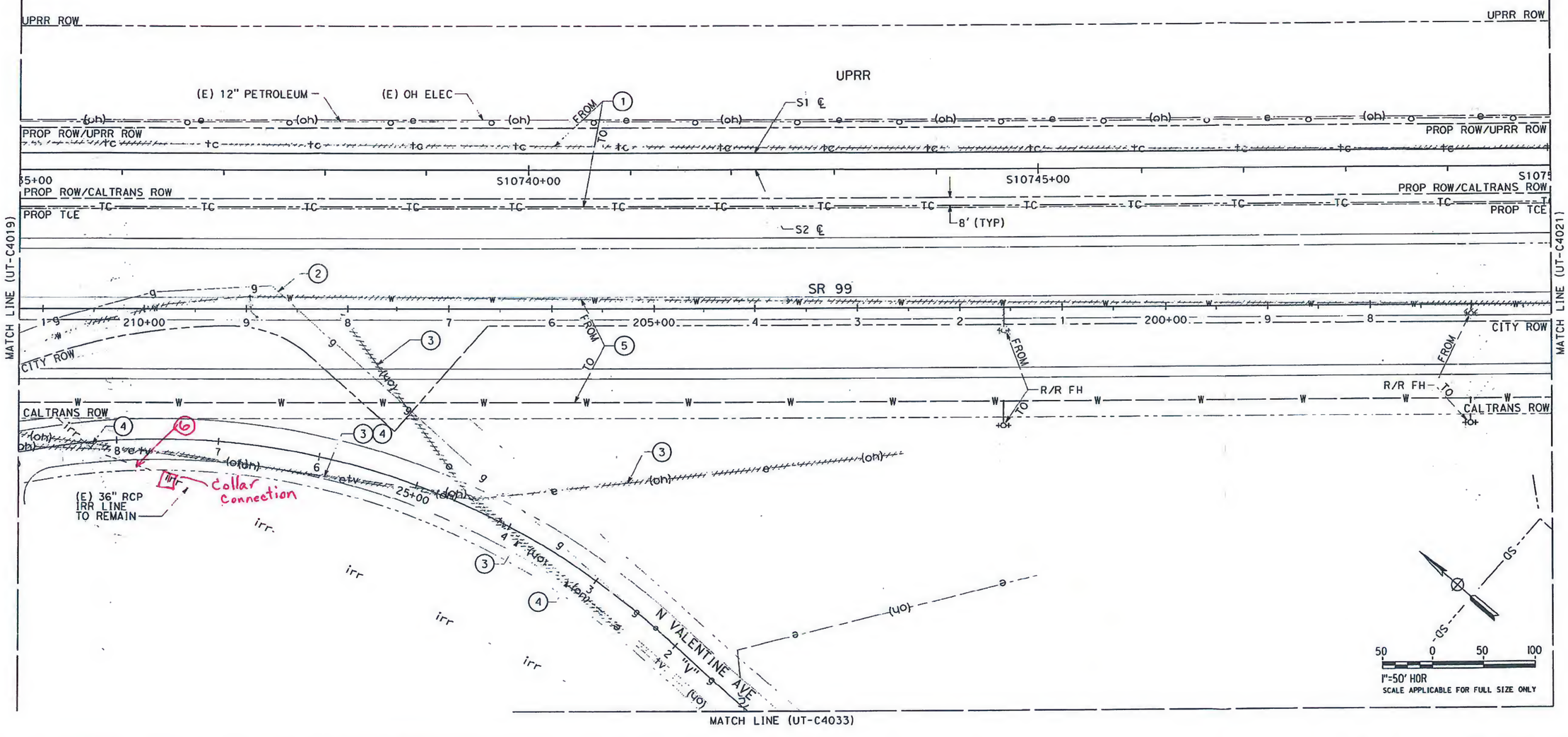

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STA. 10735+00 TO STA. 10750+00

CONTRACT NO.
DRAWING NO. UT-C4020
SCALE AS SHOWN
SHEET NO.